

An object of the invention is to realize a method and an apparatus for processing and observing a minute sample which can observe a section of a wafer in horizontal to vertical directions with high resolution, high accuracy and high throughput without splitting any wafer which is a sample. In an apparatus of the invention, there are included a focused ion beam optical system and an electron optical system in one vacuum container, and a minute sample containing a desired area of the sample is separated by forming processing with a charged particle beam, and there are included a manipulator for extracting the separated minute sample, and a manipulator controller for driving the manipulator independently of a wafer sample stage.